

# SAFETY DATA SHEET

according to EU Regulation 2015/830 - Status:  
28.05.2015

DOCUMENT: Q-M-QC\_SDB-0006

Date of issue: 12.03.2018 Version: 1.0 Replacement for the data sheet from --- Version: ---

"\*" Changes compared to previous version, n. a. = not available, n. v. = not valid

TRADE NAME: S-Bond®

SUPPLIER: EUROMAT GmbH Hermann-Hollerith-Straße 6, 52499 Baesweiler - Germany  
Phone: +49.(0)2401.60.72.866 Fax: +49.(0)2401.60.72.855 E-Mail: input@euromat.de

## SECTION 1: DESIGNATION OF THE SUBSTANCE OR MIXTURE AND OF THE COMPANY

### 1.1 Product identifier

Trade name: **S-Bond®**  
Item number: SB400-2  
Recipe number: n. a.  
Registration number: n. a.

### 1.2 Relevant identified use of the substance or mixture and Uses advised against

Application: Solder alloy for joining materials in soldering processes.

### 1.3 Details of the supplier providing the safety data sheet

#### 1.3.1 Responsible for the safety data sheet

**EUROMAT GmbH**  
Hermann-Hollerith-Str. 6 – 52499 Baesweiler, GERMANY  
Phone: +49.(0)2401.60.72.866 Fax: +49.(0)2401.60.72.855  
E-Mail: input@euromat.de Web: www.euromat.com

### 1.4 Emergency number

SUPPLIER: **EUROMAT GmbH**  
Phone: +49.(0)2401.60.72.866 Accessibility: Mo. – Fr.: 09:00 - 17:00 Uhr  
COUNSELING CENTER: n. a.  
Phone: Accessibility:

## SECTION 2: POSSIBLE DANGERS

### 2.1 Classification of the substance or mixture

**none**  
Exemption according to Annex I Number 1.3.4.1 EC 1272/2008

### 2.2 Labeling elements

Required to be labeled according to Regulation (EC) 1272/2008: NO  
Are exceptions applicable: YES  
Signal word: n. a.

Components: Zn, Ag, Al  
Hazard Pictogram(s): n.a.

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## 2.2 Labeling elements (continued)

### H-phrases:

n. a.

### P-phrases:

n. a.

Special markings: none

## 2.3 Other hazards

- ☹ May irritate the mucous membranes of the stomach if swallowed
- ☹ This mixture does not contain any substances assessed as PBT or vPvB

## SECTION 3: COMPOSITION / INFORMATION ON THE COMPONENTS

### 3.1 Fabrics

n. a.

### 3.2 MIXTURES CHEMICAL CHARACTERIZATION

Mixture alloy

#### Ingredients:

Designation: **Zinc-Zn**

CAS no:	EC no:	REACH no:	H-Phrases	m% - range
7440-66-6	231-175-3	n. v.		87,0 - 91,0

Designation: **Silver-Ag**

CAS no:	EC no:	REACH no:	H-Phrases	m% - range
7440-22-4	231-131-3	n. v.		4,0 – 6,0

Designation: **Aluminium-Al**

CAS no:	EC no:	REACH no:	H-Phrases	m% - range
7429-90-5	231-072-3	n. v.		4,0 – 6,0

Designation: **Traces of active foreign substances**

CAS no:	EC no:	REACH no:	H-Phrases	m% - range
n. a.	n. a.	n. a.		≤ 0,3

Designation: **Traces of inactive foreign substances**

CAS no:	EC no:	REACH no:	H-Phrases	m% - range
n. a.	n. a.	n. a.		≤ 0,2

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## SECTION 4: FIRST AID MEASURES

### 4.1 Description of the first aid measures

#### 4.1.1 After inhalation:

- ☹ n. a. for solid
- ☹ molten solder does not produce harmful fumes, if nausea occurs, move to fresh air

#### 4.1.2 After skin contact

- ☹ n. a. for solid
- ☹ melted solder can cause burns, cool combustion
- ☹ Consult a doctor if symptoms persist

#### 4.1.3 After eye contact

- ☹ n. a. für solid
- ☹ melted solder causes burns
- ☹ if solder splashes into the eyes, rinse immediately and seek medical attention

#### 4.1.4 After ingestion

- ☹ for solid: consult a doctor if nausea persists
- ☹ melted solder causes burns, rinse out the oral cavity and consult a doctor

### 4.2 Important acute and delayed symptoms and effects

- ☹ **none**

### 4.3 Indications for immediate medical help or special treatment

- ☹ **none**
- ☹ symptomatic treatment

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing agent

#### 5.1.1 Suitable extinguishing agents

- ☹ Dry chemical extinguishing agent, D extinguishing powder, sand, dry ice

#### 5.1.2 Extinguishing agents unsuitable for safety reasons

- ☹ Water, can lead to steam explosion.

### 5.2 Special hazards arising from the substance or mixture

- ☹ from boiling point, smoke from metal oxides

### 5.3 Advice for fire fighting

#### 5.3.1 Special protective equipment

- ☹ Put on self-contained breathing apparatus with full face mask

#### 5.3.2 Additional notes

- ☹ **none**

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## SECTION 6: ACTION TO BE TAKEN IN THE EVENT OF UNAUTHORIZED RELEASE

### 6.1 Personal precautions, protective equipment and emergency procedures. procedures to be followed in case of emergency.

- ☹ n. a. for solid
- ☹ molten solder, see chapter 8.2.2

### 6.2 Environmental protection measures

- ☹ **No** special measures required

### 6.3 Methods and material for retention

- ☹ n. a.

### 6.4 References to other sections

- ☹ **none**

## SECTION 7: HANDLING AND STORAGE

### 7.1 Protective measures for safe handling

#### 7.1.1 Note on safe handling

- ☹ Wash hands before breaks and at the end of work.
- ☹ Do not eat, drink or smoke during use (soldering).

#### 7.1.2 Notes on fire and explosion protection

- ☹ Not at risk of fire or explosion, observe usual preventive fire protection measures.

### 7.2 Conditions for safe storage taking into account Incompatibilities

#### 7.2.1 Requirements for storage rooms and containers

- ☹ store dry

#### 7.2.2 Methods of storage together

- ☹ avoid contact with strong acids or bases.

#### 7.2.3 Further information on storage conditions

- ☹ n. a.

### 7.3 Specific end use

- ☹ n. a.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT

### 8.1 Parameters to be monitored

Substance name	Monitoring value
Mixture - zinc, silver, aluminium	☹ n. a.

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<b>8.2</b>	<b>Exposure controls and monitoring</b>
<b>8.2.1</b>	<b>Suitable technical control equipment</b>
	☹ Ensure good ventilation and fume hood during processing.
<b>8.2.2</b>	<b>Individual security measures</b>
<b>8.2.2a</b>	<b>Respiratory protection</b>
	☹ Not required for solids ☹ not required during processing
<b>8.2.2b</b>	<b>Hand protection</b>
	☹ Not required for solids ☹ a protective glove in accordance with EN 388 and EN 407 must be worn during processing. The selection of a suitable glove depends not only on the material, but also on the quality and varies from manufacturer to manufacturer. Please observe the specifications of the glove supplier with regard to permeability and breakthrough time. Also consider the specific local conditions under which the product will be used, such as cut the product is used, such as cut hazard, abrasion and contact duration.
<b>8.2.2c</b>	<b>Eye protection</b>
	☹ Not required for solids ☹ there is a possible risk of splash contact during processing: Wear protective goggles
<b>8.2.2d</b>	<b>Body protection</b>
	☹ Wear long-sleeved work clothes
<b>8.2.2e</b>	<b>Other</b>
	☹ <u>no</u> remarks
<b>8.2.3</b>	<b>Environmental exposure controls and monitoring</b>
	☹ n. v.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on the basic physical and chemical properties

#### a) Appearance

Shape: Solid in various forms  
Color: Silver gray glossy

#### b) Odor

Material is odorless

#### c) Odor threshold

n. a.

#### d) pH value

n. v.

#### e) Melting point

400 °C bis 420 °C

#### f) Boiling point

> 1.400 °C

#### g) Flash point

n. v.

#### h) Evaporation rate

n. v.

#### i) Flammability

Fine-grained powder tends to self-ignition in air

#### j) upper / lower flammability or explosion limit

the material is not explosive.  
Note the possibility of formation of an explosive air-dust mixture.

#### k) Vapor pressure

n. v.

#### l) Vapor density

n. v.

#### m) Relative density

7,1 g per cm<sup>3</sup>

#### n) Solubilities

Not soluble

#### o) Partition coefficient: n-octanol / water

n. v.

#### p) Auto-ignition temperature

n. a.

#### q) Decomposition temperature

n. v.

#### r) Viscosity

n. v.

#### s) explosive properties

n. v.

#### t) oxidizing characteristics

thin oxide skin, no hazard

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<b>9.2</b>	<b>Other information</b>
	☹ n. a.
<b>SECTION 10:</b>	<b>STABILITY AND REACTIVITY</b>
<b>10.1</b>	<b>Reactivity</b>
	☹ <b>none</b>
<b>10.2</b>	<b>Chemical stability</b>
	☹ stable under normal condition
<b>10.3</b>	<b>Possible dangerous reactions</b>
	☹ reacts with strongly oxidative agents
<b>10.4</b>	<b>Conditions to avoid</b>
	☹ n. a.
<b>10.5</b>	<b>Incompatible materials</b>
	☹ reacts with strong acids and base
<b>10.6</b>	<b>Hazardous decomposition products</b>
	☹ No decomposition when stored and used as directed. ☹ No thermal decomposition

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## SECTION 11: TOXICOLOGICAL DATA

### 11.1 Information on toxicological effect

#### a) acute toxicity:

⊗ n. v.

#### b) Corrosive/irritant effect on skin:

⊗ n. v.

#### c) severe eye damage/irritation:

⊗ n. v.

#### d) Respiratory / Skin Sensitization:

⊗ n. v.

#### e) Germ cell mutagenicity:

⊗ n. v.

#### f) Carcinogenicity:

⊗ n. v.

#### g) Reproductive toxicity:

⊗ n. v.

#### h) Specific target organ toxicity at single exposure:

⊗ n. v.

#### i) Specific target organ toxicity in case of repeated exposure:

⊗ n. v.

#### j) Aspiration hazard:

⊗ n. v.

### 11.1.1 Practical experience

- 11.1.4 ⊗ Derogation for the mixture see 2.1  
11.1.11 ⊗ n. v.  
11.1.12 ⊗ There are no observations relevant to classification.

## SECTION 12: ENVIRONMENTAL DISCLOSURES

### 12.1 Toxicity

⊗ Quantitative data on the ecological effect of this mixture are not available.

### 12.2 Persistence and degradability

⊗ No data available for the product.

### 12.3 Bioaccumulative potential

⊗ n. v.

### 12.4 Mobility in soil

⊗ n. v.



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<b>12.5 Results of PBT and vPvB assessment</b>	
	☺ This mixture does not contain any substances assessed as PBT or vPvB.
<b>12.6 Other adverse effects</b>	
	☺ <b>none</b>
<b>SECTION 13: NOTES ON DISPOSAL</b>	
<b>13.1 Waste treatment process</b>	
	Recommendation: ☺ R 4 Recycling / recovery of metals and metal compounds Waste code - No.: ☺ 17.04.07 - mixed metals In addition, local and official regulations must be observed.
<b>13.2 For uncleaned packaging</b>	
	Recommendation: ☺ n. a. Safe handling: ☺ n. a.
<b>SECTION 14: TRANSPORT INFORMATION</b>	
<b>14.1 UN-Nummer</b>	
	<b>ADR</b> <b>IMDG</b> <b>IATA</b> ☺ No dangerous goods classification according to the valid directives.
<b>14.2 UN proper shipping name</b>	
	<b>ADR</b> <b>IMDG</b> <b>IATA</b> ☺ No dangerous goods classification according to the valid directives.
<b>14.3 Transport hazard class</b>	
	<b>ADR</b> <b>IMDG</b> <b>IATA</b> ☺ No dangerous goods classification according to the valid directives.

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14.4	Packing group	ADR	IMDG	IATA
		☺ No dangerous goods classification according to the valid directives.		
14.5	Environmental hazards	ADR	IMDG	IATA
		☺ No dangerous goods classification according to the valid directives.		
14.6	Special precautions for the user	ADR	IMDG	IATA
		☺ No dangerous goods classification according to the valid directives.		
14.7	Bulk transport according to Annex II of the MARPOL 73 / 78 Convention and according to the IBC Code	ADR	IMDG	IATA
		☺ No dangerous goods classification according to the valid directives.		
SECTION 15:		LEGAL		
15.1	Safety, health and environmental regulations / specific legislation for the substance or mixture			
		☺ n. v.		
15.1.1	Observe employment restrictions according to MuSchG / JArbSchG			
		☺ no		
15.1.2	Observe storage obligation according to §8 (6) GefStoffV			
		☺ no		
15.1.3	Observe the Major Accidents Ordinance			
		☺ no		
15.1.4	Technical Instruction Air			
		☺ n. a.		
15.1.5	Water hazard class			
		☺ WGK 1: slightly hazardous to water ☺ Solid practically insoluble in water		
15.1.6	Observe the regulatory scope of TRGS 900			
		☺ no		

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<b>15.1.7 Other regulations to be observed</b>			
	☺ <b>none</b>		
<b>SECTION 16:</b>		<b>OTHER DISCLOSURES</b>	
<b>16.1 Notes on changes</b>			
	☺ This safety data sheet is a new creation and replaces the previous document with release date Jan. 2006		
<b>16.2 Exposure parameters outside Germany</b>			
	<b>Country code</b>	<b>Norm</b>	<b>Limit value</b>
	N, USA	TLV	Zn – 5,0 mg/m <sup>3</sup> Ag - 0,1 mg/m <sup>3</sup> Al – 10 mg/m <sup>3</sup>
<b>16.3 Other</b>			
	<ul style="list-style-type: none"> <li>☺ This SDS has been prepared in accordance with EU Regulation.</li> <li>☺ The information may not be changed or transferred to other products.</li> <li>☺ Reproduction is permitted <b>only</b> in unaltered condition.</li> <li>☺ The information provided is based on our current knowledge.</li> <li>☺ This SDS has been compiled and is intended solely for this product.</li> </ul>		

EUROMAT GMBH does not guarantee the correctness of the above values. Values were determined in the laboratory and may vary depending on the batch. We recommend that you check the values yourself after receipt of the goods.